Makoto NISHIDA*: **Studies on the systematic position and constitution of Pteridophyta.**

9). *Microgonium* in Japan and the adjacent districts. (with Pl. II)

西田 誠: 羊歯植物の分類学的位置と構成に関する研究

9) ゼニゴケシダ

Microgonium is one of minute plants in Trichomanoid group of the family *Hymenophyllaceae* and relates closely to *Crepidomanes* in having a submarginal veinlet and numerous false veins in the lamina. It distributes widely in tropical and subtropical area on the whole world; Africa, India, Malaysia, Micronesia, Polynesia, South China, Formosa and America. About 12 species were recognized in this genus by Copeland (1938). There have been 5 species, including a new species, in Southern Japan (Ryukyus), Formosa and Micronesia.

Key to *Microgonium* in Japan and adjacent districts.

Submarginal veinlet absent.
  Frond peltate..*M. omphalodes*.
  Frond not peltate, base of frond narrower and not cordate ...*M. beccarianum*.
Submarginal veinlet present.
  Furcated veins in a frond or a lobe.................................*M. bimarginatum*.
  Single vein in a frond or a lobe.
    Simple or lobed frond with long stipe and numerous false veins.
    .... *M. falsinervulosum* sp. nov.
    Lobed or simple frond with short stipe or sessiles. and with fewer false veins. ....*M. craspedoneurum*.

1. **Microgonium omphalodes** Vieillard ap. Fournier in Ann. Sci. Nat. **5**, ser. 18: 255 (1873). Copeland, Phillip. Journ. Sci. **67**: 63 (1938). Hosokawa, Nat. Hist. Soc. Formosa **31**: 41 (1941).

Trichomanes omphalodes C. Chr. Index Filicum 646 (1906). Copeland, ibd. **51**: 203 (1933). H. Ito, Bot. Mag. Tokyo **52**: 584 (1938).

Nom. Jap. Zenigoke-shida

Hab. Ryukyu: Isl. Okinawa; Mt. Onna (K. Miyake Oct. 3, 1899) (T),* Mt. Nakō-

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* Biological Institute, Chiba University, Konakadai, CHIBA,

* The specimen symbolized by T is the one of Herbarium at the University of Tokyo, and the one by K is University of Kyoto, C is Chiba University, M is National Science Museum of Kokyo and F is National Taiwan University, Taipei, Formosa, China respectively.

shi (T. Kanashiro Oct. 10, 1937) (K)*, Isl. Iriomote; Komikawa (S. Tawada Aug. 4, 1934) (K), Hinaitaki (H. Ito May 19, 1936) (T), Inaba (M. Nishida Sept. 23, 1953) (C)*.

Bonin: Isl. Chichi-jima; (H. Hattori Jul. 19, 1905, T. Nakai Jul. 8, 1920) (T). Isl. Haha-jina (M. Ogata Jul. 28, 1930) (K).

Formosa: Taihoku; Shizangan (T. Makino Nov. 3, 1896) (T), Rahau (K. Miyake Oct. 22, 1899) (T), Taito; Aroe, Taito-gun (M. Tagawa Jan. 20, 1940) (K)

Micronesia: Palau; Isl. Babeldaob, Aimiriik (T. Hosokawa Aug. 21, 1937) (F).

Distr. Java to Tahiti. Tropical regions of Old World.

2. **Microgonium beccarianum** Copeland Phillip. Journ. Sci. **67**: 63 (1938). Tagawa, Acta Phytotax. Geobot. **9**: 143 (1941), Hosokawa, Nat. Hist. Soc. Formosa **31**: 41 (1941).

Trichomanes beccarianum Cesati, Atti Acad. Napoli **7**: pt. 8, pl. 1, fig. 2 (1876), Copeland, ibd. **51**: 200 (1933).

Trichomanes Motleyi non van den Bosch sensu Yabe Bot. Mag. Tokyo **16**: 46 (1902), ibd. **19**: 31 (1905). sensu Matsumra and Hayata, Enum. Pl. Formosa 566 (1906). sensu Nakai, Bot. Mag. Tokyo **40**: 253 (1926). sensu H. Ito, Bot. Mag. Tokyo **52**: 584 (1938).

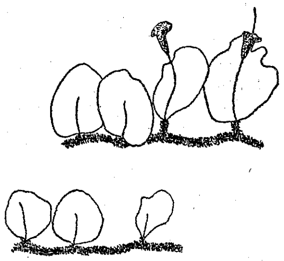


Fig. 1. *Microgonium beccarianum* from Formosa (K). ×2.

Miscogonium Motleyi non v. d. Bosch sensu H. Ito, ibd. **67**: 219 (1954).

Nom Jap. Mamegoke-shida

Hab. Ryukyu: Isl. Ishigaki; Mt. Banna (T. Hosokawa Mar. 31, 1934) (T).

Formosa: Isl. Kotosho (Botel tobago) (K. Miyake Nov. 21, 1899) (T), Taito; near Aroe, Taito-gun (Tagawa Jan. 20, 1940) (K), Tainan; Koshun (T. Suzuki Jan. 1, 1932) (M).

Micronesia: Palau; Isl. Babeldaob, Aimiriik (T. Hosokawa Jul. 25, Aug. 1939) (E), (M. Okabe Aug. 17, 1940) (T).

Distr. Ceylon to Solomon.**

3. **Microgonium bimarginatum** van den Bosch, Hymen. Javan. 7 (1861). Copeland, ibd **67**: 61 (1938), Nishida, Acta Phytotax. Geobot. **16**: 106 (1956).

** Fronds of *M. Motleyi*, especially in sterile fronds, have broader and cordate bases. As Japanese specimens have not any cordate base of fronds but broadly or usually narrowly cuneate bases, they are no doubt *M. beccarianum*.

Trichomanes bimarginatum v. d. Bosch, Ned. Kruid. Arch. **5**: 143 (1861) Copeland, ibd. **51**: 208 (1933).

Trichomanes neilgherrense non Bedd. sensu Yabe, Bot. Mag. Tokyo **19**: 31 (1905).

Nom Jap. Maruba-kokeshida.

Hab. Ryukyu: Isl. Uotsuri, Senkaku Islands (S. Tawada Apr. 2, 1952) (C). Formosa: Taihoku; Rahau (K. Miyake Oct. 22, 1899) (T).

Distr. Malaya, Ceylon and Samoa.

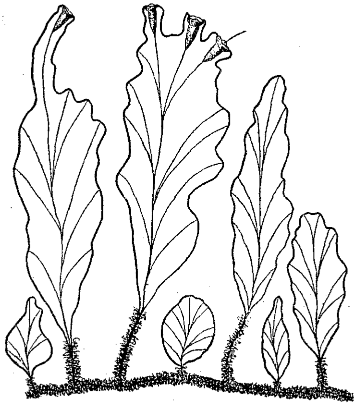


Fig. 2. *Microgonium bimarginatum* form Ryukyu (C). ×2

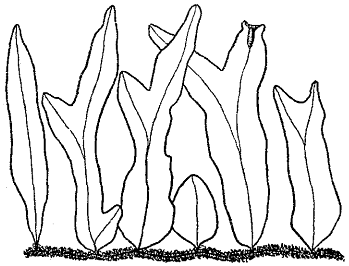


Fig. 3. *Microgonium craspedoneurum* from Palau, Micronesia (T). ×2.

4. **Microgonium craspedoneurum**

Copeland, Phillip. Journ. Sci. **67**: 61 (1938).

Trichomanes craspedoneurum Copeland, ibd. **7**: 53 (1912), ibd. **51**: 208 (1933).

Hab. Micronesisa: Plau; Babeldaob, Aimiriik (M. Okabe Aug. 17, 1940) (T). Ponape; (S. Hatsushima Jul. 21, 1939) (T). Caroline; Isl. Tol, Truk (T. Hosokawa Jul. 25, 1936) (F).

Distr. Luzon.

5. **Microgonium falsinervulosmu**

sp. nov.

Rhizoma filiforme repens, squamis densibus linearibus castaneibus 2–4 mm longibus, 0.2–0.4 mm latibus. Radix nullus. Simplicae frons saepe paucilobata. Stipes 2–5 mm longus, squamis castanaeis. Lamina lineari-elliptica ad apicem acuta ad basin angustata, undulata vel repanda versus integra. Venae spuriae numerosae, vena una submarginalis, cellulae marginalium semper unicus serie, series oblongarum cellularum inter venas spurias et venam unicam quoad omnia loba dispositi. Squamae pauces in venas, venas spurias et epidermate dorsale. Sorus tubiformis ad apicem lobatus, involucram cum loba aequilatam. Receptaculam elongatum tubiforme tumidulum ad partem mediam lobi immersum.

Hab. Micronesia: Palau; Babeldaob, Aimiriik (T. Tsuyama Sept. 8, 1939) (T)—Holotype, (T. Hosokawa Jul. 25, 1941) (F).

Distr. Micronesia.

Fine creeping rhizome with dense linear castaneous scales of 2–4 mm long and 0.2–0.4 mm wide. Destitute of root. Simple linear-elliptical often lobed frond with scaly distinct stipe of 2–5 mm long, acute tip and angustate base. Lamina 8–15 mm long, 1.5–3.0 mm wide, with entire of somewhat undulate margin, numerous false veins and a submarginal veinlet, always one layer of marginal cells, 2–4 layers of oblong cells between false and single vein in each lobe.

Few scales scattered on the vein, the false veins and the surface of the back. A trumpet-like sorus on the tip of the lobe with an involucre stretched almost whole over the width of the lobe and a long protruded receptacle and a tube somewhat swallen at the middle part is completely immersed in a lobe.

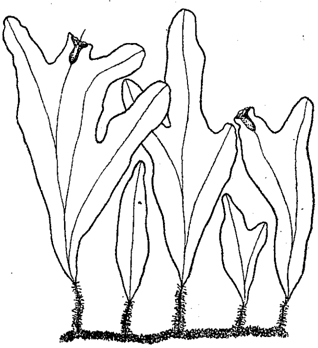


Fig. 4. *Microgonium falsinervulosm* from Palau, Micronesia (T). ×2

M. falsinervulosum bears a striking resemblance to *M. craspedoneurum* in the form of the frond, but differs distinctly from the latter in having following characters:

	M. spuronervulosum	*M. craspedoneurum*
Bese of the frond	angustate or cuneate	truncate
Stipe	long (2–5 mm)	short (less than 1 mm) or sessile
False veins	numerous	fewer
Cell-layers between false veins.	2–4 layers	4–8 layers

摘要

東大理学部植物学教室の標本で，岡部正義氏が 1940 年パラオ島で採集して *Microgonium bimarginatum* と同定されてあるものは (Fig. 2), (Pl. C) 葉身中に単一の葉脈があるだけであり (叉状脈でない) 又のう堆もラツパ状の筒の中央部がふくらんで居り，偽脈も少い点で *M. bimarginatum* とは明に異り，ルソン島に産する *M. craspedoneurum* である。ところで同じ東大の標本で *M. craspedoneurum* と同定されてあるもの中，津山博士が 1939 年にパラオ島で採集したものは，(Fig. 3), (Pl. D) 葉形，のう堆は *M. craspedoneurum* に似ているが偽脈の多いこと及び長い明な葉柄を有する点で *M. craspedoneurum* と異る。又，葉身裂片中の葉脈は叉状に分枝せず単一なので *M. bimarginatum* とも異る。葉質，偽脈の点でフィリッピン産の *M. mindorense* (Pl. B) とも明に差別出来る。*M. mindorense* や *M. craspedonerum* に近縁の新種であると考え，これに *M. spuronervulosum* と名付ける。台湾国立大学理学院の標本で，細川博士が 1942 年パラオ諸島の Babeldaob 島で採り *M. bimarginatum* と同定されてあるものもこの*M. spuronervulosum*. である。

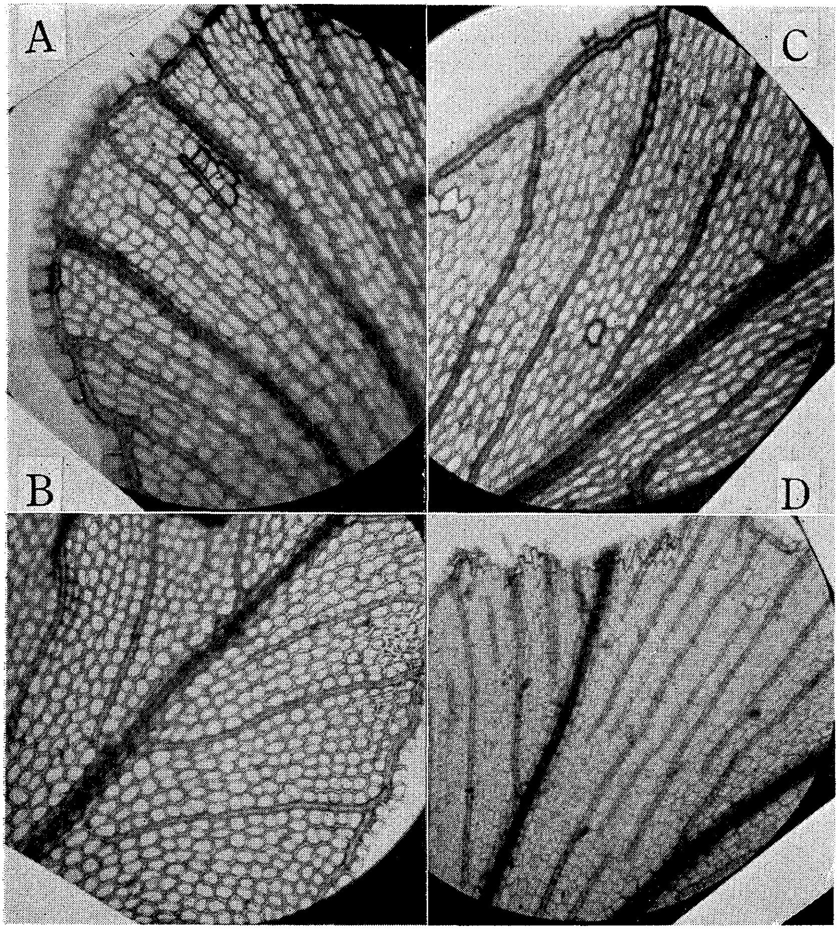
マメゴケシダの学名には従来多く *M. Motleyi* があてられていたが，Copeland (1933)，田川博士 (1941) Holttum (1954) も云つて居るように，*M. Motleyi* は葉底が広くかつ cordate している。しかるにマメゴケシダの葉底は殆ど cordate せず (Fig. 4) 狭形のものが多い。これは明に *M. beccariaum* である。結局日本南部及びその周辺には 5 種のゼニゴケシダ属植物が見られる。即ち，琉球，台湾に *M. omphalodes M. beccarianum M. bimarginatum* の 3 種，ミクロネシアに 1 新種を含めて 4 種，*M. omphalodes M. beccarianum M. craspedoneurum* 及び *M. falsinervulosum* である。

最後に本研究を御指導下さり，かつ腊葉庫に出入を許可された恩師，東京大学附属植物園長前川文夫博士に深謝する。また文献を御教示して下さつた九州大学教授細川博士，貴重な標本の一部を恵与された台湾大学教授李順卿博士に感謝する。

○再びコーボーフデに就いて (佐藤正巳) Masami SATO: Range of the genus *Dictyocephalos*.

故川村清一博士命名の稀菌コーボーフデに就いては，本誌 31 巻 4 号 (1956) に鈴木昌友君と連名で報告したが，昨秋も両地域に同様な発生を確認することができた。ただ生瀬地区では一昨年の秋に大発生した個所が，雑木林の伐採により殆んど発生が見られなかつたり，次第に環境条件が悪くなつて漸次減少する傾向がある。

コーボーフデ属 (*Dictyocephalos*) の分布に就いては，川村博士も簡単に述べて居られるが，最近はソ連でも発見されたことを今関六也，小林義雄の両氏から御教示を受けたので小林義雄博士所蔵の文献を借覧した結果を記しておく。元来この属は北米のコロラ



Pl. 1. A part of the frond. ×30

A: *M. bimarginatum* from Ryukyu (C). B: *Mindorense* from Phillipine (T). C: *M. craspedoneurm* from Micronesia (T). D: *M. falsinervulosum* from Micronesia (T).

M. Nishida: *Microgonium* in Japan